

Lessons from Scotland

by John Morton

I vacationed with my family in July on Barra, an island in the Outer Hebrides off the west coast of Scotland. Although this was my third time to Barra, it was first time that I embarked from Alaska. And it was wonderful. We landed at low tide near Eoligarry on what is billed as the only commercial airport that is, in fact, on a tidal flat.

The first living things I noticed after going ashore, besides the ubiquitous sheep, were the multicolored fields of wildflowers: buttercups, forget-me-nots, heather, fireweed, harebell, bog asphodel, ragwort, cow parsnip, bedstraw, selfheal, dandelion, Scottish thistle, tufted vetch, clover, bird's foot trefoil, knapweed, and oxeye daisy.

The second thing I noticed, being a biologist, is that many of the plants that are native to Barra are our exotics on the Kenai. As I spend more time on Barra, I find that what goes around, comes around. Japanese knotweed, clearly not a native in bonny Scotland, recently established itself on southern Barra, just as it has in southeast Alaska.

We enjoyed the next couple of weeks eating cockles and lobster, hiking, biking, visiting castles and other archaeological sites, and birding. Just outside our cottage, which was built by the Duchess of Bedford early in the last century as her special place to go birding, we saw stonechats, blackbirds, black oystercatchers, sanderlings, blackbacked gulls, ringed plovers, lapwings, corncrakes, pipits, pied wagtails, and curlews.

But we also saw mute swans and European starlings, two species that were introduced to North America sometime after Columbus. I've spent a fair amount of time as a biologist controlling populations of starlings in Napa Valley vineyards and mute swans in the Chesapeake Bay.

We returned to our home in Soldotna in mid-August only to find pineapple weed spreading over our graveled driveway, oxeye daisy filling the roadside ditch, and hemp nettle creeping across the unmowed lawn. A patch of timothy sticks out from where we had kept a friend's rabbit last winter. These are all exotic plants that were first brought to the Kenai as ornamentals or forage. I spent the next few evenings trying to

get these plants under control.

When I returned to work, I learned that a 2000-acre wildfire was burning on the south shore of Skilak Lake. Fire crews were staging out of our hangar at the Soldotna airport where, at this time of year, the surrounding gravel pads sport a flowering population of *Crepis tectorum*, a modestly invasive hawkweed from the Old World. With fire fighters launching from here to visit newly disturbed sites, it doesn't take much imagination to realize the potential for introducing an invasive plant to Congressionally-designated Wilderness. We immediately treated the hangar area with glyphosate, a common herbicide with low toxicity to animals.

Shortly thereafter, as part of a small group of natural resource professionals, I visited sites in the Swanson River oil and gas field that have been colonized by reed canary grass. Reed canary grass was originally introduced to Alaska for erosion control. Hosted by the local offices of the Soil & Water Conservation Districts and led by two experts from the Lower-48, we were alarmed to learn how badly the Platte River in Nebraska has been choked by a European strain of reed canary grass in the last few years. We were also relieved, however, to learn that its spread on the Kenai might be slowed and even reversed with an aggressive control program and some luck.

This tour prompted Refuge staff to conduct a quick inventory of exotic plants on the 62 oil and gas pads within the Swanson field the following week. In addition to white sweetclover and reed canary grass that we already knew were there, we found that two highly invasive species of hawkweed (*Hieracium umbellatum* and *H. caespitosum*) had begun to spread beyond the pads down utility right-of-ways. On one pad, we found flowering common tansy and yellow sweetclover growing side by side, the first time that either invasive species has been documented on the Refuge. Both weed patches were pulled.

Then, over Labor Day weekend, I drove up to Anchorage with my family. We often stop at the rest area near the Hope junction, and stretch our legs on the path that runs down to Canyon Creek below the bridge on Seward Highway. As we turned around to walk back to the car, I spotted a yellow flower that I

last saw on Barra! It was birds-foot trefoil, the first time I've seen this exotic legume on the Kenai, growing among our native alder. I have since found out that biologists from Chugach National Forest had tried to eradicate it here two years ago. They plan to come back in the next couple of weeks to try again.

Almost 100 species of exotic plants are now documented on the Kenai Peninsula. Many are well established, some are truly invasive, and a few can be truly injurious. By invasive, I mean that they are capable of invading undisturbed natural habitat. By injurious, I mean they have the potential to alter soil chemistry, change the natural fire regime, compromise stream flow, or replace entire natural communities. Last summer, I was dismayed to see the common dandelion displacing native alpine flora in undisturbed meadows off the trail to Hideout Mountain.

You can take the high road or the low road to Scotland, but we are clearly and rapidly approaching a crossroads on the Kenai. Invasive species management in the Lower-48 indicates that control and eradication efforts are most effective and least expensive

when new populations are nipped in the bud, figuratively if not literally. We have lots of budding new populations on the Kenai that could be nipped, if interest and energy can be mobilized.

There are many things we can do, but time is short if we want to put a damper on the introduction and spread of exotics. We should all learn how damaging invasive plants can be, learn to identify invasive plants, stop planting invasive ornamentals, feed our livestock certified weed-free forage, participate in community weed-pulls, mow our lawns frequently to prevent the development of seeds, brush the seeds off our dogs, ATVs, and clothing before heading into the bush, and lend our support to agency-led efforts to manage invasives.

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